

Effectiveness of the Tiger Catheter as a simple multipurpose in transradial coronary angiography: randomized compared to Judkins catheters. (TICKET)

Introduction. In recent decades transradial coronary angiography has gained popularity because of its low frequency of complications. And for this reason, a multipurpose catheter has been designed appropriate for the study of both coronaries, the experience being this limited field.

Objectives. The aim of this study was to assess effectiveness and safety of Tiger vs. Judkins catheters, in coronary angiography via the right transradial approach.

Methods. Patients with diagnosis of acute coronary syndrome undergoing transradial coronary angiography were randomized into the Tiger catheter vs Judkins catheter. A positive Allen's test was required.

Primary outcome measures: Procedure time for the coronary angiography.

Secondary outcome measures: Fluoroscopy time, Contrast volume used, Radial artery spasm.

Results. Analyzed a total of 120 consecutive diagnostic coronary angiography cases from the right radial approach. Of these 60 cases were performed with single catheter (Tiger) and 60 cases were performed with conventional catheter (Judkins). The patients of both group were overall well balanced for gender, age, risk factors, height, weight and body surface area. Diagnostic angiograms were successfully achieved in all cases via the radial approach.

Total procedure time ($4,45 \pm 1,82$ min vs $5,42 \pm 2,32$ min $p=0,02$) was lower in the study group with statistical significance. Total fluoroscopy time ($2,33 \pm 1,04$ min vs $2,52 \pm 1,40$ min $p=0,82$) was lower in the study group, but without statistical significance. The total volume of contrast medium (50 ml vs 70 ml $p<0,0001$) used was lower in the study group with statistical significance. And spasm was more frequently present in the conventional catheter group. Three patients required intraarterial nitrites to complete the procedure. There were no cases of femoral or contralateral arm crossover. There were no complications in those patients.

Conclusions. The specific radial catheter showed to be suitable for the study of both coronary arteries compared to conventional, showing a decrease in procedure time, fluoroscopy time and contrast medium use.